#### Classes

#### Character

```
Member variables
Name
Type
Armor
Strength (hit points)
Is dead
Member functions
Constructor
attack()
defense()
doDamage()
Get functions for all characteristics
```

### <u>Barbarian</u>

Member variables

Same as character

Member functions

Simple, straightforward versions of attack. Attack returns attack roll, defense returns defense roll. Do damage handles the damage part of the character

#### Medusa

Member variables

Name

Type

Armor

Strength (hit points)

Is dead

Member functions

Overloaded attack function returns 1000 if a 12 is rolled

#### **Harry Potter**

Member variables

Name

Type

Armor

Strength (hit points)

```
Is dead 
Member functions
```

Overloaded doDamage function resurrects harry if it's his first time dying

#### <u>BlueMen</u>

```
Member variables
```

Name

Type

Armor

Strength (hit points)

Is dead

Member functions

Overloaded defense function reduces one Die per 4 damage inflicted

## **Vampire**

Member variables

Name

Type

Armor

Strength (hit points)

Is dead

Member functions

Overloaded attack function has chance at charming opponent

// Main creates two of each type of character, adds one of each to a vector of type pointer to Character

// Display a menu of the first vector of characters for the user to choose their first fighter // Display a menu of the first vector of characters for the user to choose their second fighter, substitute in the already chosen character type with the backup character in vector 2.

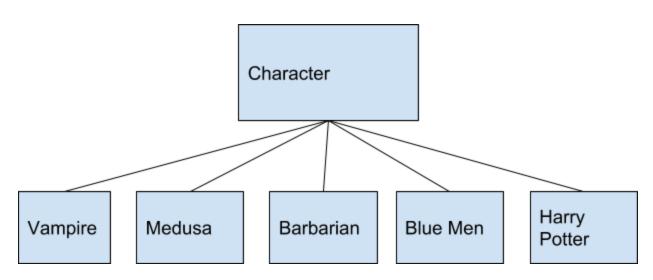
// Call battle with first character as attacker

// If defender dies, output message and end battle

// If not call battle with the roles of the characters reversed

//Ask player to play again

# Class Heirarchy



Test Case	Input Values	Driver Functions	Expected Outcomes	Observed Outcomes
All characters attack functions	none	main	Each character outputs random number according to their number of die.  Medusa outputs 1000 if a 12 is rolled	Output as expected
Vampire defense function	none	main	Vampire rolls random value between 1 and 12. Has a 50% chance of averting attacker	Behaves as expected
Blue men defense function	none	main	Blue men defense roll uses less dice	Behaves as expected

			as hit points dwindle	
Harry Potter doDamage() function	none	none	Harry potter is revived after first death	Behaves as expected
Main Battle function	Two characters	main	First character attacks, second character defends. Then second character attacks, first defends	Behaves as expected